



# Virginia Healthcare Workforce Briefs

Indicators from the Bureau of Economic Analysis

Regional Economic Accounts

**Series 3: Income & Compensation**

Series 3, Issue 30

March 2019

## Highlights

### Inside this Brief:

HC&SA Earnings	2
HC&SA Earnings Growth	2
Growth Rate by Earnings Type	3
Annual Growth by Earnings Type	3
Compensation per Employee	4
Compensation Growth	4

- ◆ In addition to the new income and compensation estimates for Quarter 4 (Q4) 2018 from the Bureau of Economic Analysis (BEA), this report also includes revised estimates from as far back as Q1 2010.
- ◆ Total earnings in Virginia's Health Care & Social Assistance (HC&SA) sector increased by \$331 million to \$31.14 billion in Q4 2018. In 2018, total earnings in Virginia's HC&SA sector increased by \$898 million, which represents a 12-month growth rate of 3.0%.
- ◆ Total employee compensation in Virginia's HC&SA sector increased by \$287 million to \$27.91 billion in Q4 2018. This gain translates into a three-month annualized growth rate of 4.2%.
- ◆ Total HC&SA compensation per employee in Virginia increased by \$574 to \$62,583 in Q4 2018. Over the past year, total HC&SA compensation per employee in the state has increased by \$1,014.

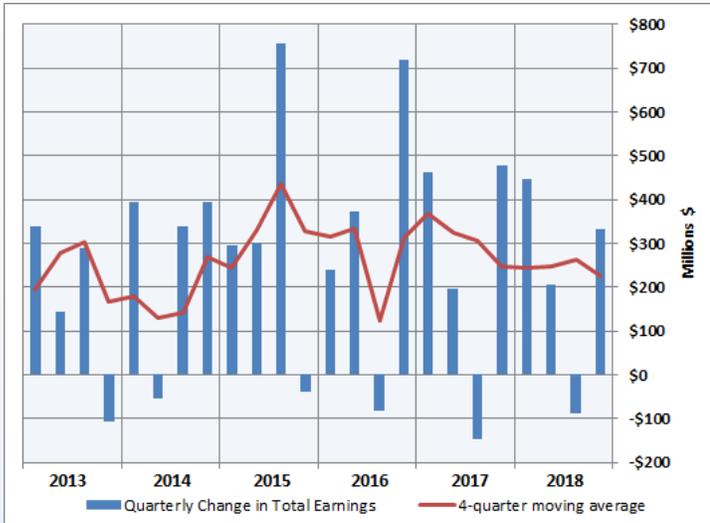
*The calendar year is the basis for data in this series. See Page 5 for additional information on this series.*

## Data in Brief

	Income (Millions of Dollars)				Growth Rate, Annualized		
	Q4 2017	Q2 2018	Q3 2018	Q4 2018	Annual	6-Month	Quarterly
<b>Earnings (Personal income less rents, interest, dividends and government payments)</b>							
<b>Virginia</b>	\$326,907	\$332,331	\$337,547	\$341,069	4.3%	5.3%	4.2%
<b>National</b>	\$12,082,371	\$12,344,994	\$12,478,304	\$12,631,479	4.5%	4.7%	5.0%
<b>Health Care &amp; Social Assistance Earnings</b>							
<b>Virginia</b>	\$30,246	\$30,900	\$30,813	\$31,144	3.0%	1.6%	4.4%
<b>National</b>	\$1,339,948	\$1,376,246	\$1,387,413	\$1,402,571	4.7%	3.9%	4.4%
<b>Health Care &amp; Social Assistance Employee Compensation (Earnings less proprietor's income, includes salaries, wages &amp; benefits)</b>							
<b>Virginia</b>	\$27,193	\$27,771	\$27,627	\$27,914	2.7%	1.0%	4.2%
<b>National</b>	\$1,194,564	\$1,227,268	\$1,235,706	\$1,248,740	4.5%	3.5%	4.3%
<b>Health Care &amp; Social Assistance Compensation per Employee (HWDC Estimate)</b>							
<b>Virginia</b>	\$61,569	\$62,411	\$62,009	\$62,583	1.6%	0.5%	3.8%
<b>National</b>	\$60,597	\$61,735	\$61,900	\$61,895	2.1%	0.5%	0.0%

## Health Care & Social Assistance Earnings

**Figure 1: Quarterly Change in Total Earnings from Virginia’s Health Care & Social Assistance Sector. Includes Proprietor’s Income, Salaries and Wages, and Benefits.**



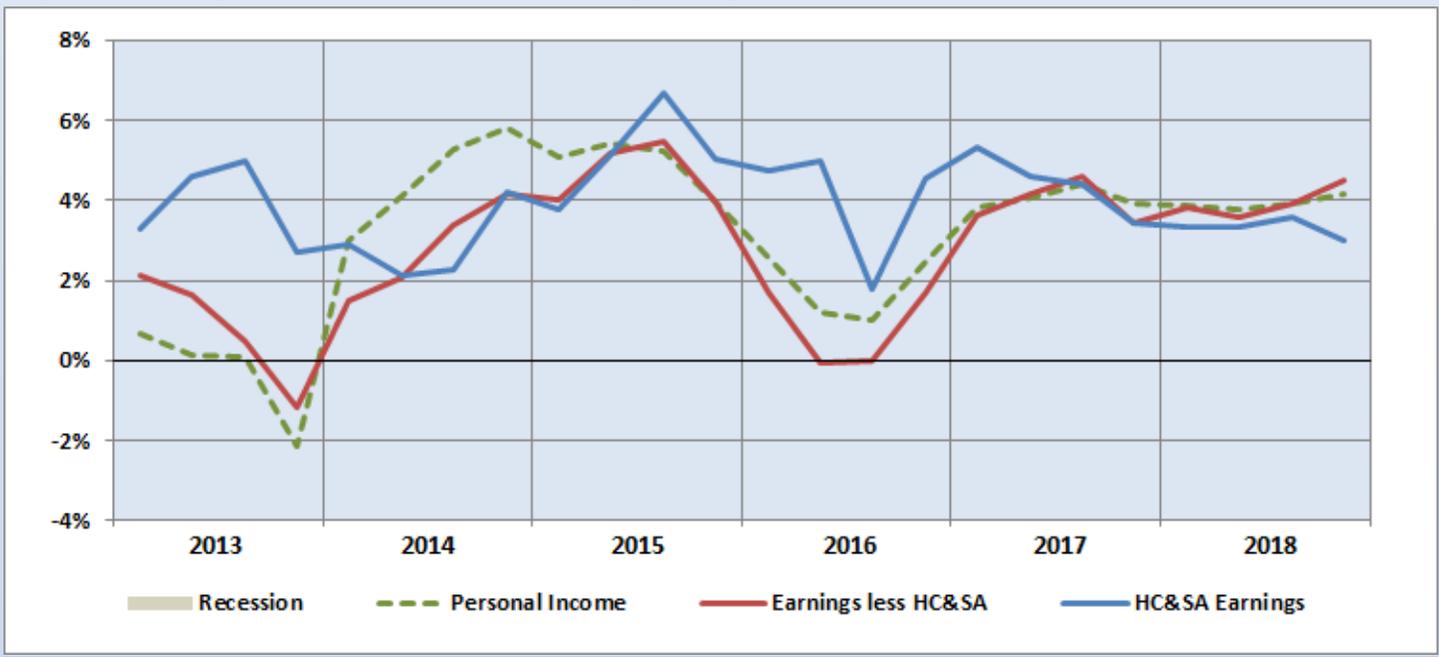
According to data released on Tuesday, March 26, 2019 by the U.S. Bureau of Economic Analysis, total earnings in Virginia’s Health Care & Social Assistance (HC&SA) sector increased by \$331 million to \$31.14 billion in Q4 2018. This gain represents a quarterly annualized growth rate of 4.4%, which exceeds the comparable 4.2% growth rate of Virginia’s total earnings. This also represents the largest one-quarter gain in total HC&SA earnings in the state since Q1 2018.

In 2018, total earnings in Virginia’s HC&SA sector increased by \$898 million, a gain that translates into a 12-month growth rate of 3.0%. Despite this earnings growth, however, this result represents the smallest full-year gain for the state’s total HC&SA earnings since 2013. In addition, the four-quarter moving average of the change in Virginia’s total HC&SA earnings declined to its lowest level in more than two years in Q4 2018.

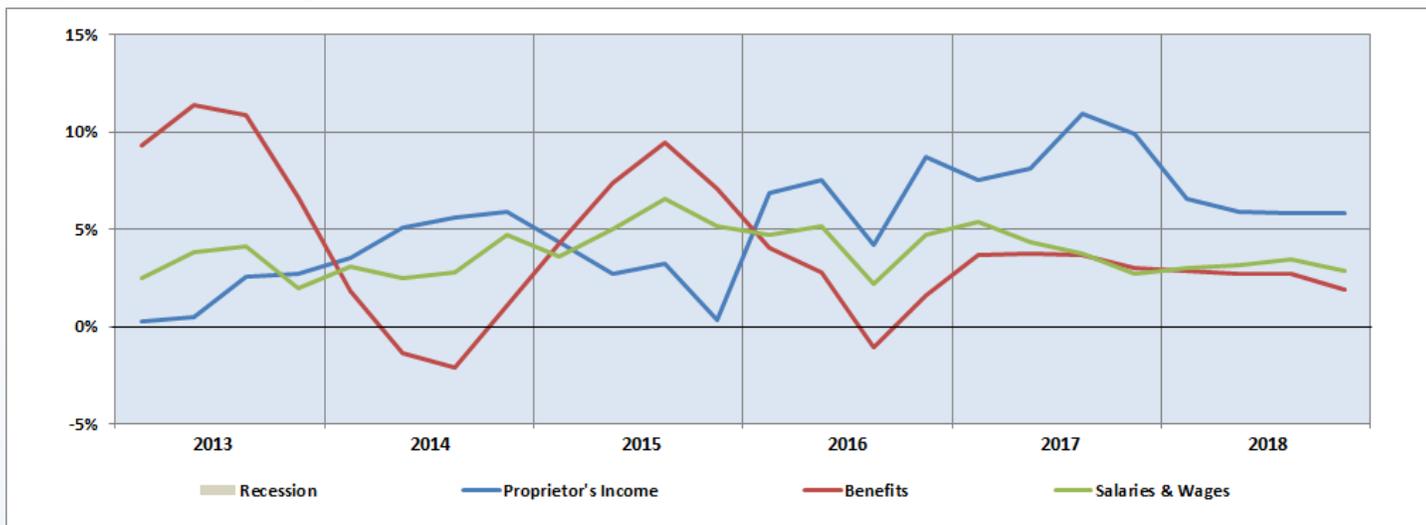
### Virginia HC&SA Earnings Growth Rate

Despite the strong growth in Virginia’s HC&SA earnings in Q4 2018, its four-quarter growth rate moving average still fell from 3.56% to 3.00%. With this decline, the four-quarter moving average of the growth rate in Virginia’s total HC&SA earnings has reached its lowest value since Q3 2016. It has also been trailing the comparable moving averages of both Virginia’s non-HC&SA earnings and personal income, a trend that has persisted throughout all of 2018. In fact, both of these moving averages increased in Q4 2018. The four-quarter moving average of the growth rate in Virginia’s non-HC&SA earnings increased from 3.91% to 4.49%, which represents its highest value in 2018. As for the state’s personal income, its four-quarter growth rate moving average increased from 3.93% to 4.18%. This represents the largest value for the four-quarter moving average of the growth rate in Virginia’s personal income in more than one year.

**Figure 2: Earnings Growth Rate, 4-Quarter Moving Average (Annualized)**



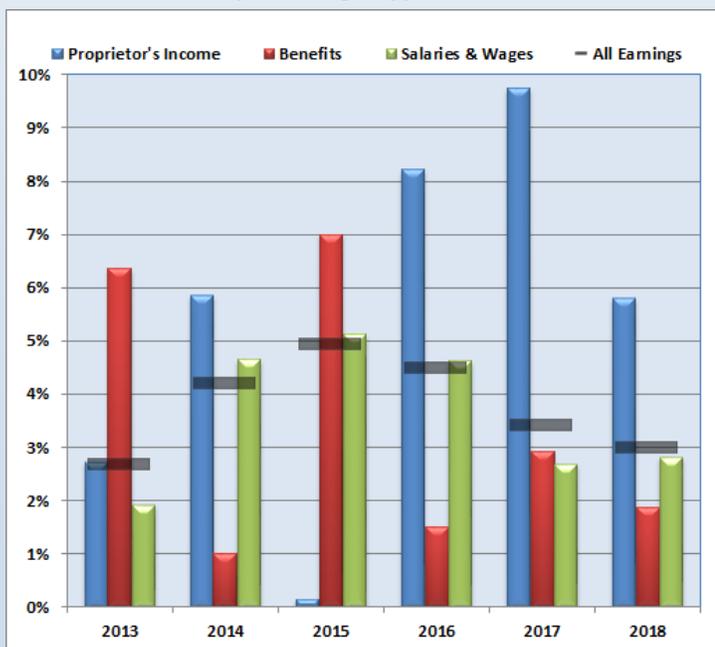
### Virginia HC&SA Earnings Growth Rate by Earnings Type



**Figure 3: Earnings Growth Rate by Type of Earnings, 4-Quarter Moving Average (Annualized)**

All forms of HC&SA compensation experienced a decline in their four-quarter growth rate moving averages in Q4 2018. However, this decline was minimal for Virginia’s HC&SA proprietor’s income, which continues to enjoy higher long-term earnings growth relative to HC&SA employee compensation. In Q4 2018, the four-quarter moving average of the growth rate in HC&SA proprietor’s income drifted downward slightly from 5.83% to 5.82%. At the same time, the four-quarter moving average of the growth rate in HC&SA employee salaries & wages fell from 3.43% to a one-year low of 2.85%. There was an even larger decline in the four-quarter moving average of the growth rate of HC&SA employee benefits, which fell from 2.72% to 1.91% in Q4 2018, thereby reaching its lowest value in two years.

### Annual Growth by Earnings Type



**Figure 4: Virginia HC&SA Earnings Growth Rate by Type of Earnings (Annualized)**

In 2018, total HC&SA earnings in Virginia grew by 3.0%. This represents the third consecutive year in which the growth rate of total HC&SA earnings in the state has slowed down. Since 2015, the growth rate of Virginia’s total HC&SA earnings has slowed down by nearly 40%. In addition, this result represents the slowest full-year growth rate of the state’s total HC&SA earnings since 2013. In that year, total HC&SA earnings in the state grew by 2.7%.

For the third consecutive year, HC&SA earnings growth in the state has been driven mainly by growth in proprietor’s income. In 2018, HC&SA proprietor’s income in the state grew by 5.8%. Despite this impressive growth, it still represents a significant slow-down relative to its 9.7% growth rate in 2017. Meanwhile, HC&SA employee salaries & wages grew by 2.8% in 2018, and HC&SA employee benefits grew by 1.9% during the year.

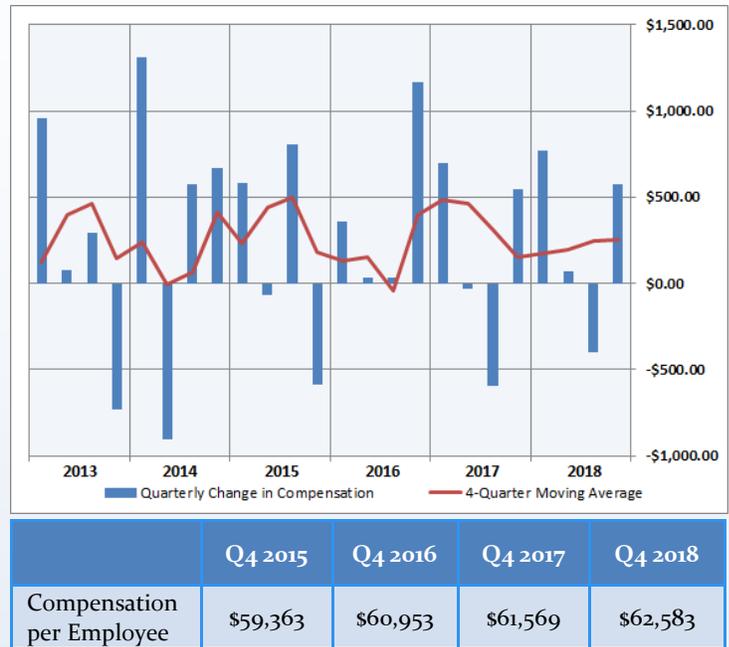
Earnings Type	Level (Millions)	Share
Proprietor's Income	\$3,230	10.4%
Benefits	\$4,638	14.9%
Salaries & Wages	\$23,276	74.7%
<b>Total</b>	<b>\$31,144</b>	<b>100%</b>

### HC&SA Compensation per Employee

According to the Healthcare Workforce Data Center’s estimates (see methodology, next page), employees in Virginia’s HC&SA sector earned an average of \$62,583 (annualized) in Q4 2018. Note that this figure includes salaries & wages plus the cost of benefits for employed persons only. Practitioners in private practice, which includes a large number of the sector’s highly paid professionals, are not included in this figure.

In Q4 2018, Virginia’s total HC&SA compensation per employee increased by \$574. With this gain, Virginia’s HC&SA sector recovered all of its losses from the previous quarter when total compensation per employee in the sector fell by \$403. Thanks in large part to this quarter’s gain, total HC&SA compensation per employee in the state grew by \$1,014 in 2018, a gain that translates into a 12-month earnings growth rate of 1.6%. This represents a marked improvement relative to 2017 when total HC&SA compensation per employee in the state grew by \$616 over the course of the year.

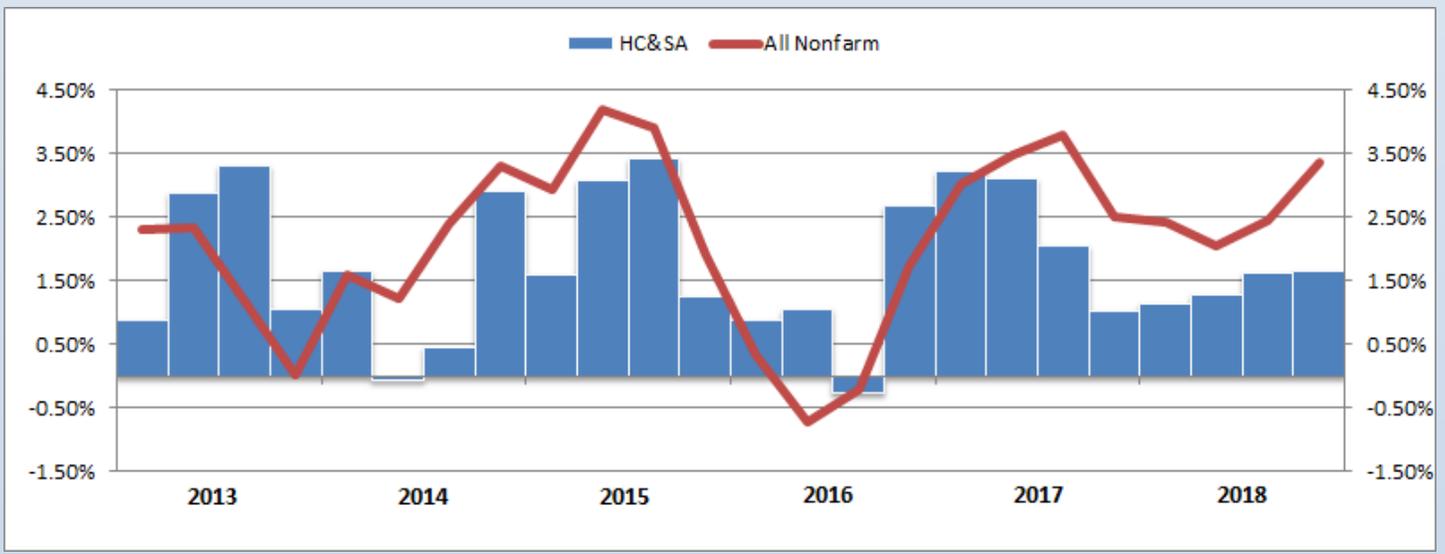
**Figure 5: Quarterly Change in Employee Compensation from Virginia’s Health Care & Social Assistance Sector.**



### Compensation per Employee Growth Rate

Over the past four quarters, the year-over-year growth rate of Virginia’s HC&SA compensation per employee has been drifting upwards. In Q4 2017, this growth rate fell by more than half to 1.01%, thereby reaching its lowest value in more than one year. Since then, however, the year-over-year growth rate in Virginia’s HC&SA compensation per employee has increased for four consecutive quarters. In Q4 2018, this year-over-year growth rate increased from 1.62% to 1.65%. Regardless, the year-over-year growth rate in Virginia’s HC&SA compensation per employee still remains below the comparable growth rate of the state’s total nonfarm payroll. The year-over-year growth rate of Virginia’s total nonfarm payroll increased from 2.44% to 3.37% in Q4 2018. This represents its highest year-over-year growth rate since Q3 2017.

**Figure 6: Year-Over-Year Change in Compensation Per Employee.**



---

## Definitions

Economic data in this briefing is from the US Bureau of Economic Analysis' Regional Economic Accounts. In particular, we use the Quarterly State Personal Income Accounts. The definitions provided here are written for a lay audience. More technical definitions and in-depth information on the Regional Economic Accounts are available on the BEA's website: <http://www.bea.gov/regional/about.cfm>.

**Personal Income:** Income received from all sources, including salaries & wages, benefits, business profits, rents, government payments or retirement and investment funds. Personal income is based on where recipients live.

**Earnings:** Earned income includes salaries & wages, benefits (aka supplements to wages and salaries) and proprietor's income. Earnings and its components are based on where recipients work.

**Proprietor's Income:** Income from small businesses (sole proprietorships & partnerships), corporate director's fees and tax-exempt cooperatives. It does NOT include dividends or interest received by non-financial businesses or rental income received by non-real estate businesses.

**Compensation:** Salaries & wages and benefits.

**Benefits:** Referred to as "supplements to wages and salaries by the BEA, benefits includes employer contributions to retirement funds, insurance (including health and life) and to government social insurance programs (e.g., unemployment insurance, Social Security, worker's compensation insurance, etc).

**Salaries & Wages:** Salaries, wages, commissions, bonuses and tips, before deductions, based on when payments are disbursed. The value of stock options are also included at the time the options are exercised.

---

## Method of Estimating Compensation per Employee

The HWDC derives estimates of compensation per employee from two sources: 1) US Bureau of Economic Analysis' Regional Economic Accounts (REA), and, 2) the Current Establishment Survey (CES) administered jointly by the US Bureau of Labor Statistics and the US Census Bureau. These sources use different methodologies and different definitions. Although more vigorous estimates of employment are available, the HWDC uses these sources to provide the most timely indication of current trends possible at the state-industry level. The HWDC estimates are early indicators only.

To make the two data sources more comparable, the HWDC makes the following transformations:

**CES:** To obtain quarterly estimates of employment, monthly figures are averaged for the quarter. For nonfarm employment, we remove the latest available estimate of logging employment from the Quarterly Census of Employment and Wages, rounded to the nearest hundred, from nonfarm totals in the CES prior to averaging.

**REA:** From nonfarm compensation (or its components), we remove military earnings, agriculture, fishing and forestry earnings and an estimate of earnings from households. For household earnings estimates, we use the REA's Annual State Personal Income and Employment tables to develop current estimates of the proportion of "Other services, except public administration" compensation from employment in private households. We use the most recent data available for the current quarter. We apply this proportion to the current quarterly estimate of "Other services, except public administration".

Despite these transformations, the figures are not wholly comparable. The BEA makes additional adjustments to BLS data when creating its own, annual estimates of employment. Historical indicators are not adjusted by the HWDC, however adjustments made to REA or CES series are incorporated into historical data. For more information on employment data and the REA, see the BEA's *State Personal Income and Employment Methodology*, pages XI-1 to XI-11 & Table K.

---



Healthcare Workforce  
Data Center

Perimeter Center  
9960 Mayland Drive, Suite 300  
Henrico, VA 23233-1463

Phone: (804) 367-2115  
Fax: (804) 527-4434  
E-mail: [hwdc@dhp.virginia.gov](mailto:hwdc@dhp.virginia.gov)

[www.dhp.virginia.gov/hwdc/](http://www.dhp.virginia.gov/hwdc/)

*HWDC Staff:*

Elizabeth Carter, Ph.D.  
*Executive Director*

Yetty Shobo, Ph.D.  
*Deputy Director*

Laura Jackson  
*Operations Manager*

Christopher Coyle  
*Research Assistant*

The Department of Health Professions Healthcare Workforce Data Center works to improve the data collection and measurement of Virginia's healthcare workforce through regular assessment of workforce supply and demand issues among the 80 professions and 350,000 practitioners licensed in Virginia by DHP.

The HWDC collects data on Virginia's licensed health professionals through surveys completed during the online license renewal and application process. Survey results and data may be accessed on our website: [www.dhp.virginia.gov/hwdc/](http://www.dhp.virginia.gov/hwdc/).

The HWDC also provides a series of Virginia Healthcare Workforce Briefs based on data collected by the US Department of Labor's Bureau of Labor Statistics and the US Department of Commerce' Bureau of Economic Analysis.

Virginia Healthcare Workforce Briefs:

Series 1: State & National Employment (Monthly)

Series 2: Virginia Regional Employment (Monthly)

Series 3: Income & Compensation (Quarterly)

Follow us on Tumblr:

<http://vahwdc.tumblr.com/>

---

## About the Data

Data used in creating this report is from the US Department of Commerce' Bureau of Economic Analysis' Regional Economic Accounts. Unless otherwise noted, data is seasonally adjusted and annualized, and quarterly presentations are based on the calendar year. Data from recent quarters is preliminary and subject to revision in future releases from the BEA. Revisions will be reported in future editions of this series.

---